

Whispers – July 19th, 2022



The markets' shrug off accelerating inflation provided reason for positivity, with whispers of an Ethereum Merge date leading to big ether outperformance on the week

KEY TAKEAWAYS

- + Broader markets shrugged off the 9.1% headline CPI print for the month of June, perhaps as participants take note of declining commodity prices, interest rates, and breakevens since mid-June
- + Last week, ether outperformed on whispers of a Merge date, highlighting the asset's higher-beta nature versus bitcoin
- + Bitcoin has rallied 17.7% since the peak in inflation expectations, illustrating its ability to bounce when macro conditions warrant
- + Correlations to traditional equities have declined from their highs and digital assets remain diversifiers to traditional portfolios

THE BIRD'S EYE VIEW

Some signs of positivity were illustrated last week as the market shrugged off the highly anticipated headline CPI report for the month of June, which illustrated yet another acceleration in U.S. inflation with 9.1% growth from a year ago.

Despite a new four-decade high in headline CPI, digital assets and equities rallied off their weekly lows, perhaps as market participants took note of real-time indicators such as the declines in commodity prices, yields, and breakeven rates since mid-June.

Friday's economic data also provided reason for positivity, with equities breaking a four-day losing streak following the morning data. Retail sales highlighted the strength of the US consumer, while the University of Michigan survey illustrated improving sentiment (51.1 vs. 50 prior) and a decline in inflation expectations (1yr ahead inflation 5.2% vs. 5.3% prior, 5-10yr 2.8% vs. 3.1% prior).

This data resulted in a strong second half of the week for bitcoin and ether, with the two rallying 10.6% and 33.5% from Wednesday's lows. On the week, bitcoin was flat (-0.2%), while ether gained 14.2% as the S&P 500 and the Nasdaq declined -0.9% and -1.6%, respectively.

This gain from the lows on Wednesday (low of \$18,918 for bitcoin and \$1,006 for ether) illustrates to us that in this environment, lower inflation expectations are beneficial for digital assets, as this can bring a resurgence in risk-appetite.

This resurgence has been illustrated in our tantrum table on page three: the growth and tech heavy Nasdaq Composite is up 7.6% from its lows, while high-beta and small-cap growth have rallied 5.9% and 9.1% in the same period. Bitcoin and ether are up 17.7% and 48.9% from the lows placed on June 18th

In other news, some of the dust has settled with the overleveraged bunch, as Celsius has now filed for Chapter 11 (restructuring) bankruptcy protection. This comes alongside Voyager Digital's Chapter 11 filing and 3AC's Chapter 15

(liquidation) filing. While the recovery process and ultimate solution may take some time, this progress and a lack of new bad news since has certainly provided some reassurance for digital asset investors and traders.

Bitcoin closed the week at \$20,931, showing four weeks of support since the capitulatory low of \$17,785 on June 18th, while ether closed at \$1,334 versus its closing low of \$903 on the same day. Strong weekend performance followed through on Monday, with bitcoin and ether closing at \$21,488 and \$1,471, respectively.

UPDATE ON THE MERGE

Ether rallied throughout the weekend as an Ethereum core developer offered a tentative target date for the long-awaited transition to proof-of-stake, which is now penciled in for September 19th.

In short, "stakers" post collateral, vote to approve transactions, and receive rewards for doing so. Key benefits of Ethereum's Merge include:

- + ~99% less energy use than proof-of-work, making Ethereum ESG-friendly
- Improved scalability as transactions are approved without complex equations
- Reductions in new issuance and a potential deflationary supply with EIP-1559's buyback
- Staked ether (in hot validators) receive staking rewards as a form of cash-flow and income

While the Merge introduces some execution risk, the result will be a significant improvement to Ethereum if successful.

These whispers of a tentative merge date provided reason for a significant rally in ether last week, with the asset up 14.2% in the week and 33.5% just from Wednesday's lows.

This illustrates the high-beta nature of ether vs. bitcoin; while ether underperformed on the downside (max drawdown of - 81.2 vs. bitcoin's -73.7%), it has outperformed on the upside (up 48.9% from the lows vs. 17.7%, as of Sunday's close.)



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7.0%

CRYPTO RALLIES AS INFLATION EXPECTATIONS EASE

While many question whether bitcoin is a price inflation hedge, recent events illustrate that in today's environment, it's likely better for inflation to decline, rather than to rise.

As we find, inflation expectations likely peaked in mid-June with commodities, yields, breakeven rates, and Fed expectations having declined quite rapidly since.

Crude, wheat, and copper futures have fallen -21%, -29%, and -29% since early June. On Friday, the University of Michigan's survey reported a decline in inflation expectations, with consumers expecting one-year ahead inflation to be 5.2% vs. 5.3% prior, and five-to-ten years ahead to be 2.8% vs. 3.1% prior. Fed Fund futures are now pricing in a 3.5% policy rate by February of 2023, down from the 3.9% expected on June 14th.

To the right, we illustrate short-term breakeven rates, with the important 1-year breakeven declining from 5.5% on June 13th to now 3.6% by the end of last week.

Despite 191 basis points of lower inflation expectations, bitcoin has rallied 17.7% from the lows on June 18th. Bitcoin and digital assets do not need inflation to rally.

BITCOIN & BREAKEVENS

Source: Bloomberg, Eaglebrook Advisors





CORRELATIONS DECLINE, **CRYPTO STILL DIVERSIFIES**

We often discuss the old-adage "when volatility rises, correlations go to one" as an example of why bitcoin and ether have traded in-line with traditional equities in these tumultuous times.

Important to note, however, is that while correlations have risen, both bitcoin and ether remain less correlated to the S&P 500 than other major equity indices and sectors.

For example, while bitcoin and ether's 90D correlation to the S&P 500 reached a maximum of 0.71 and 0.73 on May 12th. these correlations are still less than the S&P 500's correlation to global equities (0.97) or the Information Technology sector (0.97).

So, despite the rise in correlations, a trim of equities for digital asset exposure certainly diversifies traditional portfolios.

With different long-term drivers of returns and many periods of negative correlations in the past, we're eager to see how today's relationships evolve over time. For now, bitcoin and ether's correlations have begun to decline, with correlations to the S&P 500 of 0.62 and 0.60.

90D CORRELATIONS

Source: Bloomberg, Eaglebrook Advisors







KEY MARKET DATA

As of Sunday, 7/17/2022

Market Capitalization	2018	2019	2020	2021	2022 YTD	
Bitcoin Market Cap (mlns)	\$65,307	\$130,517	\$538,811	\$876,370	\$397,671	
Ether Market Cap (mlns)	\$13,886	\$14,141	\$84,171	\$433,423	\$160,473	
Total Crypto Market Cap (mlns)	\$122,177	\$186,105	\$766,003	\$2,250,184	\$931,288	
Bitcoin Dominance %	53.5%	70.1%	70.3%	38.9%	42.7%	
Ethereum Dominance %	11.4%	7.6%	11.0%	19.3%	17.2%	
	Source: Glassnode TradingView Faglebroom					

Bitcoin 2018 2019 2020 2021 **2022 YTD** Supply (mlns) 17.5 18.1 18.6 18.9 19.1 **Market Price** \$3,674 \$7,158 \$28,996 \$46,334 \$20,931 **Realized Price** \$4,556 \$5,587 \$9,206 \$24,480 \$21,962 Realized Value (mlns) \$101,309 \$463,063 \$419,400 \$79,524 \$171,112 Market Value / Realized Value 0.82 1.29 3.15 1.89 0.95 **Hash Rate** 40.5 EH/S 94.3 EH/S 153 EH/S 179.2 EH/S 179.6 EH/S Transfer Volume (USD, mlns) \$2,127,287 \$1,893,560 \$2,327,727 \$13,106,605 \$9,725,432 Avg Daily Transfer Volume (USD, mlns) \$5,828 \$5,188 \$6,360 \$35,909 \$49,118 **Avg Transaction Value (USD)** \$26,518 \$18,073 \$21,266 \$138,824 \$192,103

Source: Glassnode¹, Bloomberg, Eaglebrook Advisors

	Level	WTD%	MTD%	QTD%	YTD%	1 Year%	3 Year%	5 Year%	% off 52Wk High	90D Annualized Vol.
Bitcoin	\$20,931	-0.2%	11.7%	11.7%	-54.8%	-34.1%	116.1%	862.8%	-69.1%	69.5%
Ether	\$1,344	14.1%	33.0%	33.0%	-63.6%	-29.2%	532.0%	605.3%	-72.0%	93.5%
S&P 500	3,863	-0.9%	2.1%	2.1%	-18.3%	-9.4%	36.0%	71.7%	-19.5%	26.7%
Nasdaq Composite	11,452	-1.6%	3.9%	3.9%	-26.5%	-20.0%	43.6%	90.3%	-28.7%	36.0%
Bloomberg Barclays Agg	2,124	0.9%	0.6%	0.6%	-9.8%	-10.3%	-2.1%	4.9%	-11.0%	7.6%
Gold Spot \$/Oz	\$1,708	-2.0%	-5.5%	-5.5%	-6.6%	-5.7%	19.7%	38.4%	-16.7%	14.0%
DXY Index	\$108.1	1.0%	3.2%	3.2%	13.0%	16.6%	11.1%	13.6%	-0.4%	8.4%
WTI Crude	\$97.6	-6.9%	-7.7%	-7.7%	26.8%	35.9%	71.9%	112.1%	-21.1%	59.3%

Source: Bloomberg, Eaglebrook Advisors.

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High Since 9/30/21	Max Drawdown	Low Close Date	Rally From Low	YTD Price % Change
11/1/2021	-70.8%	6/13/2022	20.6%	-53.4%
11/3/2021	-32.8%	6/17/2022	5.1%	-24.7%
11/8/2021	-30.9%	6/16/2022	5.9%	-23.4%
11/8/2021	-24.0%	6/16/2022	2.8%	-16.7%
11/8/2021	-40.7%	6/16/2022	9.1%	-27.7%
11/9/2021	-13.3%	6/14/2022	3.3%	-9.8%
11/9/2021	-73.7%	6/18/2022	17.7%	-54.8%
11/9/2021	-81.2%	6/18/2022	48.9%	-63.6%
4/21/2022	-0.49	7/11/2022	0.06	-0.14
4/21/2022	-0.74	7/6/2022	0.08	-0.22
3/25/2022	-1.23	7/6/2022	0.11	-0.30
3/25/2022	-2.02	7/12/2022	0.13	-0.18
3/8/2022	-16.7%	7/15/2022	0.0%	-6.6%
11/19/2021	-33.7%	6/16/2022	7.6%	-26.8%
12/27/2021	-30.7%	6/16/2022	7.6%	-24.2%
1/3/2022	-23.6%	6/16/2022	5.4%	-18.9%
	11/1/2021 11/3/2021 11/8/2021 11/8/2021 11/8/2021 11/9/2021 11/9/2021 11/9/2021 4/21/2022 4/21/2022 4/21/2022 3/25/2022 3/8/2022 11/19/2021 12/27/2021	11/1/2021 -70.8% 11/3/2021 -32.8% 11/8/2021 -30.9% 11/8/2021 -24.0% 11/8/2021 -40.7% 11/9/2021 -13.3% 11/9/2021 -73.7% 11/9/2021 -81.2% 4/21/2022 -0.49 4/21/2022 -0.74 3/25/2022 -1.23 3/25/2022 -2.02 3/8/2022 -16.7% 11/19/2021 -33.7% 12/27/2021 -30.7%	11/1/2021 -70.8% 6/13/2022 11/3/2021 -32.8% 6/17/2022 11/8/2021 -30.9% 6/16/2022 11/8/2021 -24.0% 6/16/2022 11/8/2021 -40.7% 6/16/2022 11/9/2021 -13.3% 6/14/2022 11/9/2021 -73.7% 6/18/2022 11/9/2021 -81.2% 6/18/2022 4/21/2022 -0.49 7/11/2022 4/21/2022 -0.74 7/6/2022 3/25/2022 -1.23 7/6/2022 3/8/2022 -16.7% 7/15/2022 11/19/2021 -33.7% 6/16/2022 12/27/2021 -30.7% 6/16/2022	11/1/2021 -70.8% 6/13/2022 20.6% 11/3/2021 -32.8% 6/17/2022 5.1% 11/8/2021 -30.9% 6/16/2022 5.9% 11/8/2021 -24.0% 6/16/2022 2.8% 11/8/2021 -40.7% 6/16/2022 9.1% 11/9/2021 -13.3% 6/14/2022 3.3% 11/9/2021 -73.7% 6/18/2022 17.7% 11/9/2021 -81.2% 6/18/2022 48.9% 4/21/2022 -0.49 7/11/2022 0.06 4/21/2022 -0.74 7/6/2022 0.08 3/25/2022 -1.23 7/6/2022 0.11 3/25/2022 -2.02 7/12/2022 0.13 3/8/2022 -16.7% 7/15/2022 0.0% 11/19/2021 -33.7% 6/16/2022 7.6% 12/27/2021 -30.7% 6/16/2022 7.6%

Source: Bloomberg, Eaglebrook Advisors





DISCLOSURES

Realized Price, Source: Glassnode. Realized Price is the Realized Cap divided by the current supply. Realized Capitalization, Source: Glassnode. Realized Cap values different part of the supplies at different prices (instead of using the current daily close). Specifically, it is computed by valuing each UTXO by the price when it was last moved. Market Cap / Realized Cap, Source: Glassnode. Market Value to Realized Value (MVRV) is the ratio between market cap and realized cap. It gives an indication of when the traded price is below a "fair value". Hash Rate, Source: Glassnode: The average estimated number of hashes per second produced by the miners in the network. Total Transfer Volume, Source: Glassnode. Data is change-adjusted, annual sum: The total amount of coins transferred on-chain, adjusted by change volume. Only successful transfers are counted. Avg Daily Transfer Volume, Source: Glassnode. Data is change-adjusted, daily average: The total amount of coins transferred on-chain, adjusted by change volume. Only successful transfers are counted. Avg Transaction Value, Source: Glassnode. The mean value of a transfer, adjusted by change volume. Only successful transfers are counted.

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Volatility Risk: Digital currency is a speculative and volatile investment asset. Investors should be prepared for volatile market swings and prolonged bear markets. Digital currency can have higher volatility than other traditional investments such as stocks and bonds and market movements can be difficult to predict.

Economic Risk: The economic risk associated with digital currency is in the lack of widespread or continuing digital currency adoption. The market and investors could decide that digital currency should not be valued at the current market capitalization due to a variety of factors. Regulatory Risk: Digital currency could be banned or highly regulated by governments that would deter investors from buying or holding digital currency.

Technical Risk: Digital currency is a dynamic network with a codebase that is updated to add new security and functionality features. The updated code that is merged by the core developers could potentially have an error that threatens the security or functionality of the digital currency network

Cybersecurity Risk: Digital currency exchanges and wallets have been hacked and digital currency has been stolen in the past. This is a potential risk that clients must be comfortable with when investing and holding digital currency. Theft is less likely when holding digital currency at a qualified custodian in offline systems (cold storage) with institutional security and controls.

The indexes presented are unmanaged portfolios of specified securities and the performance shown is gross of fees which do not reflect any initial or ongoing expenses. Indexes cannot be invested in directly. Returns for digital assets may differ significantly from the returns of indexes which hold securities. Returns are for the time periods shown.

BGN, Bloomberg Generic Price: A real-time composite based on quotes from multiple contributors that provides a market indication of where assets are priced. BGN uses both executable and indicative pricing, depending on the type of quotes available in the marketplace at the time of pricing. This methodology is used for bitcoin and ether.

The S&P 500 Index is an unmanaged value-weighted index of 500 common stocks that is generally considered representative of the U.S. stock market.

The NASDAQ Composite Index is a broad-based capitalization-weighted index of stocks in all three NASDAQ tiers: Global Select, Global Market and Capital Market.

The Bloomberg US Aggregate Bond Index is a broad-based flagship benchmark that measures the investment grade, US dollar-denominated, fixed-rate taxable bond market. The index includes Treasuries, government-related and corporate securities, MBS (agency fixed-rate pass-throughs), ABS and CMBS (agency and non-agency).

The ICE U.S. Dollar Index is a geometrically-averaged calculation of six currencies weighted against the U.S. dollar.

The Gold Spot price is quoted as US Dollars per Troy Ounce.

Bloomberg's spot crude oil price indications use benchmark WTI crude at Cushing, OK; and other U.S. crude oil grades trade on a price spread differential to WTI, Cushing.

The Volatility Index (VIX) shows the market's expectations of 30-day volatility. It is constructed using the implied volatilities of a wide range of S&P 500 index options. The VIX is a widely used measure of market risk.

ARK Innovation ETF is an actively managed exchange-traded fund incorporated in the USA. The Fund will invest in equity securities of companies relevant to the theme of disruptive innovation. Relevant themes are those that rely on or benefit from the development of new products or services in scientific research relating to Genomics Revolution, Web x.0, and Industrial Innovation

iShares MSCI USA Momentum Factor ETF is an exchange traded fund incorporated in the USA. The Fund seeks to track the performance of an index that measures the performance of U.S. large and mid capitalization stocks exhibiting relatively higher momentum characteristics, before fees and expenses.

Invesco S&P 500 High Beta ETF is an exchange-traded fund incorporated in the USA. The Fund tracks the S&P500 High Beta Index which consists of the 100 stocks from the S&P500 with the highest sensitivity to market movements, or beta, over the past year. The index is designed for investors initiating a bullish strategy or making a directional bet. The Fund is rebalanced quarterly.

iShares Russell 2000 Value ETF is an exchange-traded fund incorporated in the USA. The ETF tracks the performance of the Russell 2000 Value index and holds small cap US equities focused on low price to book ratios and lower forecasted growth. Its investments are primarily focused in the consumer discretionary, financial and industrial sectors. The ETF uses a representative sampling approach.

iShares Russell 2000 Growth ETF is an exchange-traded fund incorporated in the USA. The ETF tracks the performance of the Russel 2000 Growth Index and invests in over 1000 small cap US equities across all sectors. The ETF weights its holdings using a representative sampling indexing strategy, generally investing at least 90% of its assets in the underlying index.

US Breakeven Rates: The rates are United States breakeven inflation rates. They are calculated by subtracting the real yield of the inflation linked maturity curve from the yield of the closest nominal Treasury maturity. The result is the implied inflation rate for the term of the stated maturity.

The MSCI Em (Emerging Markets) Index is a free-float weighted equity index that captures large and mid cap representation across Emerging Markets (EM) countries. The index covers approximately 85% of the free float-adjusted market capitalization in each country.

The MSCI EAFE Index is a free-float weighted equity index. The index was developed with a base value of 100 as of December 31, 1969. The MSCI EAFE region covers DM countries in Europe, Australasia, Israel, and the Far East

The MSCI US REIT Index is a price-only index, which MSCI began calculating on June 20, 2005. Previously, this index (then known as the Morgan Stanley REIT Index) was calculated and maintained by the AMEX. The AMEX began calculating the index with a base level of 200, as of December 30, 1994.

Bloomberg Commodity Index (BCOM) is calculated on an excess return basis and reflects commodity futures price movements. The index rebalances annually weighted 2/3 by trading volume and 1/3 by world production and weight-caps are applied at the commodity, sector and group level for diversification. Roll period typically occurs from 6th-10th business day based on the roll schedule.

Standard and Poor's 500 Information Technology Index is a capitalization-weighted index. The index was developed with a base level of 10 for the 1941-43 base period.

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